FINANCIAL ANALYSIS

بيكسلز

FINAL TERM

CHAPTERS: 7+8+9+10

AHMAD Al-KHATEEB

Chapter 7

Long-Term Debt-Paying Ability

Debt ratios

مهم

1.Times Interest Earned = $\frac{Operating\ Profit}{Interest\ expense+capitalized\ Interest}$

Or

1. Times Interest Earned = $\frac{net\ income+intrest+taxes}{Interest\ expense+capitalized\ Interest}$

2. Debt Ratio = $\frac{Total\ Liabilites}{Total\ Assets}$

3. Debt / Equity Ratio = $\frac{Total\ Liabiltes}{Stockholder's\ Equity}$

4.Debt to Tangible net worth ratio= $\frac{Total\ liabilites}{Stockholder's\ Equity+Intangables}$

Problems

P 7-1 Consider the following operating figures:

Net sales	$1,079,143
Cost and deductions:	
Cost of sales	792,755
Selling and administration	264,566
Interest expense, net	4,311
Income taxes	5,059
	1,066,691
	$ 12,452

Note: Depreciation expense totals $40,000.

Required

a. Compute the times interest earned.
b. Compute the cash basis times interest earned.

PROBLEMS

PROBLEM 7-1

$$\text{Times Interest Earned} = \frac{\text{Recurring Earnings, Excluding Interest Expense, Tax Expense, Equity Earnings and Minority Earnings}}{\text{Interest Expense, Including Capitalized Interest}}$$

Earnings before interest and tax:

Net sales	$1,079,143
Cost of sales	(792,755)
Selling and administration	(264,566)
$ 21,822	

a. $\text{Times Interest Earned} = \frac{\$21{,}822}{\$4{,}311} = 5.06 \text{ times per year}$

b. Cash basis times interest earned:

$$\frac{\$21{,}822 + \$40{,}000}{\$4{,}311} = \frac{\$61{,}822}{\$4{,}311} = 14.34 \text{ times per year}$$

P 7-7 For the year ended June 30, 2011, A.E.G. Enterprises presented the financial statements below.

Early in the new fiscal year, the officers of the firm formalized a substantial expansion plan. The plan will increase fixed assets by $190 million. In addition, extra inventory will be needed to support expanded production. The increase in inventory is purported to be $10 million.

The firm's investment bankers have suggested the following three alternative financing plans:

Plan A: Sell preferred stock at par, 5%.

Plan B: Sell common stock at $10 per share.

Plan C: Sell long-term bonds, due in 20 years, at par ($1,000), with a stated interest rate of 8%.

A.E.G. ENTERPRISES
Balance Sheet for June 30, 2011 (in thousands)

Assets		
Current assets:		
Cash	$ 50,000	
Accounts receivable	60,000	
Inventory	106,000	
Total current assets		$216,000
Property, plant, and equipment	$504,000	
Less: Accumulated depreciation	140,000	364,000
Patents and other intangible assets		20,000
Total assets		$600,000
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 46,000	
Taxes payable	15,000	
Other current liabilities	32,000	
Total current liabilities		$ 93,000
Long-term debt		100,000
Stockholders' equity:		
Preferred stock ($100 par, 5% cumulative, 500,000 shares authorized and issued)		50,000
Common stock ($1 par, 200,000,000 shares authorized, 100,000,000 issued)		100,000
Premium on common stock		120,000
Retained earnings		137,000
Total liabilities and stockholders' equity		$600,000

A.E.G. ENTERPRISES
Income Statement
For the Year Ended June 30, 2011
(in thousands except earnings per share)

Sales		$936,000
Cost of sales		671,000
Gross profit		$265,000
Operating expenses:		
Selling	$62,000	
General	41,000	103,000
Operating income		$162,000

Other items:	
Interest expense	20,000
Earnings before provision for income tax	$142,000
Provision for income tax	56,800
Net income	$ 85,200
Earnings per share	$ 0.83

Required

a. For the year ended June 30, 2011, compute:

1. Times interest earned
2. Debt ratio
3. Debt/equity ratio
4. Debt to tangible net worth ratio

PROBLEM 7-7

a. 1. Times Interest Earned = $\dfrac{\text{Recurring Earnings, Excluding Interest Expense, Tax Expense, Equity Earnings, and Minority Earnings}}{\text{Interest Expense, Including Capitalized Interest}}$

$\dfrac{\$162,000}{\$\ 20,000}$ = 8.1 times per year

2. Debt Ratio = $\dfrac{\text{Total Liabilities}}{\text{Total Assets}}$

$\dfrac{\$193,000}{\$600,000}$ = 32.2%

3. Debt/Equity Ratio = $\dfrac{\text{Total Liabilities}}{\text{Stockholders' Equity}}$

$\dfrac{\$193,000}{\$407,000}$ = 47.4%

4. Debt to Tangible Net Worth Ratio = $\dfrac{\text{Total Liabilities}}{\text{Tangible Net Worth}}$

$\dfrac{\$193,000}{\$407,000 - \$20,000}$ = 49.9%

P 7-9 Allen Company and Barker Company are competitors in the same industry. Selected financial data from their 2011 statements follow.

Balance Sheet
December 31, 2011

	Allen Company	Barker Company
Cash	$ 10,000	$ 35,000
Accounts receivable	45,000	120,000
Inventory	70,000	190,000
Investments	40,000	100,000
Intangibles	11,000	20,000
Property, plant, and equipment	180,000	520,000
Total assets	$356,000	$985,000

	Allen Company	Barker Company
Accounts payable	$ 60,000	$165,000
Bonds payable	100,000	410,000
Preferred stock, $1 par	50,000	30,000
Common stock, $10 par	100,000	280,000
Retained earnings	46,000	100,000
Total liabilities and capital	$356,000	$985,000

Income Statement
For the Year Ended December 31, 2011

	Allen Company	Barker Company
Sales	$1,050,000	$2,800,000
Cost of goods sold	725,000	2,050,000
Selling and administrative expenses	230,000	580,000
Interest expense	10,000	32,000
Income taxes	42,000	65,000
Net income	$ 43,000	$ 73,000
Industry Averages:		
Times interest earned		7.2 times
Debt ratio		40.3%
Debt/equity		66.6%
Debt to tangible net worth		72.7%

Required

a. Compute the following ratios for each company:

1. Times interest earned
2. Debt ratio
3. Debt/equity ratio
4. Debt to tangible net worth

PROBLEM 7-9

a. 1. $$\text{Times Interest Earned} = \frac{\text{Recurring Earnings, Excluding Interest Expense, Tax Expense, Equity Earnings and Minority Earnings}}{\text{Interest Expense, Including Capitalized Interest}}$$

$$\frac{\$95{,}000}{\$10{,}000} = 9.5 \text{ times} \qquad \frac{\$170{,}000}{\$32{,}000} = 5.3 \text{ times}$$

2. $$\text{Debt Ratio} = \frac{\text{Total Liabilities}}{\text{Shareholders' Equity}} = \frac{\$160{,}000}{\$356{,}000} = 44.9\% \quad \frac{\$575{,}000}{\$985{,}000} = 58.4\%$$

3. $$\text{Debt Equity} = \frac{\text{Total Liabilities}}{\text{Shareholders' Equity}} = \frac{\$160{,}000}{\$196{,}000} = 81.6\% \quad \frac{\$575{,}000}{\$410{,}000} = 140.2\%$$

4. Debt to Tangible Net Worth =

$$\frac{\text{Total Liabilities}}{\text{Shareholders' Equity} - \text{Intangibles}} = \frac{\$160{,}000}{\$196{,}000 - \$11{,}000} = 86.5\%$$

$$\frac{\$575{,}000}{\$410{,}000 - \$20{,}000} = 147.4\%$$

8. Joseph and John, Inc., had the following balance sheet results for 2008:

	(in millions)
Current liabilities	$12.6
Bonds payable	18.6
Lease obligations	2.7
Minority interest	1.4
Common stock	8.6
Retained earnings	22.9
	$66.8

Compute the debt-equity ratio.
a. 112.1%
b. 87.6%
c. 67.6%
d. 46.7%
e. none of the answers are correct

ANS: A

9. Which of the following statements best compares long-term borrowing capacity ratios?
a. The debt/equity ratio is more conservative than the debt ratio.
b. The debt ratio is more conservative than the debt/equity ratio.
c. The debt/equity ratio is more conservative than the debt to tangible net worth ratio.
d. The debt to tangible net worth ratio is more conservative than the debt/equity ratio.
e. The debt ratio is more conservative than the debt to tangible net worth ratio.

ANS: D

10. In computing debt to tangible net worth, which of the following is not subtracted in the den
a. copyrights
b. goodwill
c. patents
d. investments
e. trademarks

ANS: D

11. A fixed charge coverage:
a. is a balance sheet indication of debt carrying ability
b. is an income statement indication of debt carrying ability
c. is a liquidity ratio
d. frequently includes research and development
e. computation is standard from firm to firm

ANS: B

12. The following financial statement data are taken from Xeron Company's 2008 annual report:

	(in millions)
Current assets	$12.6
Investments	9.4
Intangibles	6.8
Tangible assets (net)	58.1
Current liabilities	6.4
Long-term debt	39.7
Stockholders' equity	40.8

Compute the debt ratio.
a. 196.9%
b. 113.0%
c. 53.0%
d. 45.7%
e. none of the answers are correct

ANS: C

13. The following financial statement data are taken from Xeron Company's 2008 annual report:

	(in millions)
Current assets	$12.6
Investments	9.4
Intangibles	6.8
Tangible assets (net)	58.1
Current liabilities	6.4
Long-term debt	39.7
Stockholders' equity	40.8

Compute the debt to tangible net worth ratio.
a. 146.8%
b. 135.6%
c. 53.0%
d. 45.7%
e. none of the answers are correct

ANS: B

14. If a firm has substantial capital or financing leases disclosed in the notes but not capitalized in t financial statements, then:
a. the times interest earned ratio will be overstated, based upon the financial statements
b. the fixed charge ratio will be overstated, based upon the financial statements
c. the debt ratio will be understated
d. the working capital will be understated
e. none of the answers are correct

ANS: C

MULTIPLE CHOICE

1. Jones Company has long-term debt of $1,000,000, while Smith Company, Jones' competitor, has long-term debt of $200,000. Which of the following statements best represents an analysis of the long-term debt position of these two firms?
   a. Smith Company's times interest earned should be lower than Jones.
   b. Jones obviously has too much debt when compared to its competitor.
   c. Jones should sell more stock and use less debt.
   d. Smith has five times better long-term borrowing ability than Jones.
   e. Not enough information to determine if any of the answers are correct.

   ANS: E

2. Ingram Dog Kennels had the following financial statistics for 2008:

Long-term debt	$400,000
(average rate of interest is 8%)	
Interest expense	35,000
Net income	48,000
Income tax	46,000
Operating income	107,000

   What is the times interest earned for 2008?
   a. 11.4 times
   b. 3.3 times
   c. 3.1 times
   d. 3.7 times
   e. none of the answers are correct

   ANS: D

3. A times interest earned ratio of 0.90 to 1 means:
   a. that the firm will default on its interest payment
   b. that net income is less than the interest expense
   c. that the cash flow is less than the net income
   d. that the cash flow exceeds the net income
   e. none of the answers are correct

   ANS: B

4. Which of the following will not cause times interest earned to drop? Assume no other changes than those listed.
   a. An increase in bonds payable with no change in operating income.
   b. An increase in interest rates.
   c. A rise in preferred stock dividends.
   d. A rise in cost of goods sold with no change in interest expense.
   e. A drop in sales with no change in interest expense.

   ANS: C

TEST BANK :

CHAPTER 7—LONG-TERM DEBT-PAYING ABILITY

MULTIPLE CHOICE

1. Jones Company has long-term debt of $1,000,000, while Smith Company, Jones' competitor, has long-term debt of $200,000. Which of the following statements best represents an analysis of the long-term debt position of these two firms?

   a. Smith Company's times interest earned should be lower than Jones.

   b. Jones obviously has too much debt when compared to its competitor.

   c. Jones should sell more stock and use less debt.

   d. Smith has five times better long-term borrowing ability than Jones.

   e. Not enough information to determine if any of the answers are correct.

   ANS: E

2. Ingram Dog Kennels had the following financial statistics for 2008:

Long-term debt	$400,000
(average rate of interest is 8%)	
Interest expense	35,000
Net income	48,000
Income tax	46,000
Operating income	107,000

   What is the times interest earned for 2008?

   a. 11.4 times

   b. 3.3 times

   c. 3.1 times

   d. 3.7 times

   e. none of the answers are correct

   ANS: D

3. A times interest earned ratio of 0.90 to 1 means:

   a. that the firm will default on its interest payment

   b. that net income is less than the interest expense

   c. that the cash flow is less than the net income

   d. that the cash flow exceeds the net income

e. none of the answers are correct

ANS: B

4. Which of the following will not cause times interest earned to drop? Assume no other changes than those listed.

a. An increase in bonds payable with no change in operating income.

b. An increase in interest rates.

c. A rise in preferred stock dividends.

d. A rise in cost of goods sold with no change in interest expense.

e. A drop in sales with no change in interest expense.

ANS: C

5. A times interest earned ratio indicates that:

a. preferred stock has no maturity date

b. the debt will never become due

c. the firm will be able to repay the principal when due

d. the principal can be refinanced

e. none of the answers are correct

ANS: E

6. Jordan Manufacturing reports the following capital structure:

Current liabilities	$100,000
Long-term debt	400,000
Deferred income taxes	10,000
Preferred stock	80,000
Common stock	100,000
Premium on common stock	180,000
Retained earnings	170,000

What is the debt ratio?

a. 0.48

b. 0.49

c. 0.93

d. 0.96

e. none of the answers are correct

ANS: B

7. The debt ratio indicates:

a. the ability of the firm to pay its current obligations

b. the efficiency of the use of total assets

c. the magnification of earnings caused by leverage

d. a comparison of liabilities with total assets

e. none of the answers are correct

ANS: D

8. Joseph and John, Inc., had the following balance sheet results for 2008:

	(in millions)
Current liabilities	$12.6
Bonds payable	18.6
Lease obligations	2.7
Minority interest	1.4
Common stock	8.6
Retained earnings	22.9
	$66.8

Compute the debt-equity ratio.

a. 112.1%

b. 87.6%

c. 67.6%

d. 46.7%

e. none of the answers are correct

ANS: A

9. Which of the following statements best compares long-term borrowing capacity ratios?

a. The debt/equity ratio is more conservative than the debt ratio.

b. The debt ratio is more conservative than the debt/equity ratio.

c. The debt/equity ratio is more conservative than the debt to tangible net worth ratio.

d. The debt to tangible net worth ratio is more conservative than the debt/equity ratio.

e. The debt ratio is more conservative than the debt to tangible net worth ratio.

ANS: D

10. In computing debt to tangible net worth, which of the following is not subtracted in the denominator?

a. copyrights

b. goodwill

c. patents

d. investments

e. trademarks

ANS: D

11. A fixed charge coverage:

a. is a balance sheet indication of debt carrying ability

b. is an income statement indication of debt carrying ability

c. is a liquidity ratio

d. frequently includes research and development

e. computation is standard from firm to firm

ANS: B

12. The following financial statement data are taken from Xeron Company's 2008 annual report:

	(in millions)
Current assets	$12.6
Investments	9.4
Intangibles	6.8
Tangible assets (net)	58.1
Current liabilities	6.4
Long-term debt	39.7
Stockholders' equity	40.8

Compute the debt ratio.

a. 196.9%

b. 113.0%

c. 53.0%

d. 45.7%

e. none of the answers are correct

ANS: C

13. The following financial statement data are taken from Xeron Company's 2008 annual report:

	(in millions)
Current assets	$12.6
Investments	9.4
Intangibles	6.8

Tangible assets (net)	58.1
Current liabilities	6.4
Long-term debt	39.7
Stockholders' equity	40.8

Compute the debt to tangible net worth ratio.

a. 146.8%

b. 135.6%

c. 53.0%

d. 45.7%

e. none of the answers are correct

ANS: B

14. If a firm has substantial capital or financing leases disclosed in the notes but not capitalized in the financial statements, then:

a. the times interest earned ratio will be overstated, based upon the financial statements

b. the fixed charge ratio will be overstated, based upon the financial statements

c. the debt ratio will be understated

d. the working capital will be understated

e. none of the answers are correct

ANS: C

15. Under the Employee Retirement Income Security Act, a company can be liable for its pension plan up to:

a. 30 percent of its total assets

b. 30 percent of its net worth

c. 40 percent of its total assets

d. 40 percent of its net worth

e. 50 percent of its total assets

ANS: B

16. Included in the Employee Retirement Income Security Act are the following:

a. provisions requiring minimum funding of pension plans

b. minimum rights to employees upon termination of their employment

c. creation of the Pension Benefit Guaranty Corporation

d. provisions requiring minimum funding of pension plans and minimum rights to employees upon termination of their employment

e. provisions requiring minimum funding of pension plans, minimum rights to employees upon termination of their employment, and creation of the Pension Benefit Guaranty Corporation

ANS: E

17. What significant improvement in the financial reporting of pensions have pension accounting rules provided?

a. determination of the expense for the income statement

b. limited balance sheet recognition of pension liabilities

c. improved disclosure

d. determination of the expense for the income statement and limited balance sheet recognition of pension liabilities

e. determination of the expense for the income statement, limited balance sheet recognition of pension liabilities, and improved disclosure

ANS: E

18. There are a number of assumptions about future events that must be made regarding a defined benefit plan. An assumption that does not need to be made is:

a. interest rates

b. employee turnover

c. mortality rates

d. compensation

e. how long the firm will continue

ANS: E

19. Which of the following statements is not correct?

a. A ratio that indicates a firm's long-term, debt-paying ability from the income statement view is the times interest earned.

b. Some of the items on the income statement that are excluded in order to compute times interest earned are interest expense, income taxes, and unusual or infrequent items.

c. Capitalized interest should be included with interest expense when computing times interest earned.

d. Usually, the highest times interest coverage in the most recent five-year period is used as the primary indication of the interest coverage.

e. In the short run, a firm can often meet its interest obligations, even when the times interest earned is less than 1.00.

ANS: D

20. Which of these items represents a definite commitment to pay out funds in the future?

a. bonds payable

b. reserves for rebuilding furnaces

c. deferred taxes

d. minority shareholders' interests

e. redeemable preferred stock

ANS: A

21. Which of the following statements is <u>not</u> true relating to a capitalized (capital) lease?

    a. A capital lease is handled as if the lessee bought the asset.

    b. The leased asset is in the fixed assets and the related obligation is included in liabilities.

    c. On the balance sheet, the capitalized asset amount will not usually agree with the capitalized liability amount because the liability is reduced by payments, and the asset is reduced by depreciation taken.

    d. Usually, a company depreciates capitalized leases faster than payments are made.

    e. On the balance sheet, the capitalized asset amount will usually be higher than the capitalized liability amount.

ANS: E

22. Which of the following statements is <u>not</u> true relating to a defined contribution pension plan?

    a. A defined contribution plan defines the contributions of the company to the pension plan.

    b. Once the defined contribution is paid, the company has no further obligation to the pension plan.

    c. This type of plan shifts the risk to the employee as to whether the pension plan will grow to provide for a reasonable pension payment upon retirement.

    d. There is no problem estimating the company's pension expense.

    e. This type of plan presents substantial problems in estimating the pension liability.

ANS: E

23. A number of assumptions about future events must be made regarding a defined benefit plan. Which of the following does <u>not</u> represent one of the assumptions?

    a. interest rates

    b. termination date for the firm

    c. employee turnover

    d. mortality rates

    e. compensation

ANS: B

Chapter 8

Profitability

Profitability ratios

1. Net Profit Margin = $\frac{Net\ income}{Net\ sales}$ مهم

2. Total Asset Turnover = $\frac{Net\ Sales}{Average\ total\ assets}$

3. Return on Asset (ROA) = $\frac{Net\ income}{Average\ total\ assets}$

4. Operating Income Margin = $\frac{Operating\ income}{Net\ sales}$

5. Operating Asset Turnover = $\frac{Net\ Sales}{Average\ operating\ assets}$

Operating assets = Total assets – intangibles – marketable securities – long term investments

6. Revenue on Operating Assets = $\frac{Operating\ income}{Average\ operating\ assets}$

7. Return on Equity (ROE) = $\frac{Net\ income}{Average\ total\ equity}$

8. Return on Common Equity = $\frac{Net\ income - Preferred\ divedends}{Average\ common\ stock}$

Common stock = Total equity – preferred dividends

9. Gross Profit margin = $\frac{Gross\ profit}{Net\ sales}$

10. Sales to fixed assets = $\frac{net\ sales}{average\ net\ fixed\ assets}$

11. Return on investment ROI =

$$\frac{net\ income\ before\ noncontrolling\ interest\ and\ non\ recurring\ items + (intrest\ expenses) \times (1 - \text{tax rate})}{average\ (long-term\ liabilities + equity\ )}$$

12. Return on Total Equity =

$$\frac{net\ income\ before\ nonrecurring\ items - dividends\ on\ redeemable\ preferred\ stock}{average\ total\ equity}$$

13.Return on Common Equity = $\frac{net\ income\ before\ nonrecurring\ items - preferred\ dividends}{average\ common\ equity}$

Problems

P 8-1 Ahl Enterprise lists the following data for 2011 and 2010:

	2011	2010
Net income	$ 52,500	$ 40,000
Net sales	1,050,000	1,000,000
Average total assets	230,000	200,000
Average common equity	170,000	160,000

Required Calculate the net profit margin, return on assets, total asset turnover, and return on common equity for both years. Comment on the results. (For return on assets and total asset turnover, use end-of-year total assets; for return on common equity, use end-of-year common equity.)

PROBLEM 8-1

$$\text{Net Profit Margin} = \frac{\text{Net Income Before Minority Share of Earnings and Nonrecurring Items}}{\text{Net Sales}}$$

	2004	2003
	$\frac{\$52{,}500}{\$1{,}050{,}000}$	$\frac{\$40{,}000}{\$1{,}000{,}000}$
	5.00%	4.00%

$$\text{Return on Assets} = \frac{\text{Net Income Before Minority Share of Earnings and Nonrecurring Items}}{\text{Average Total Assets}}$$

	2004	2003
	$\frac{\$52{,}500}{\$230{,}000}$	$\frac{\$40{,}000}{\$200{,}000}$
	22.83%	20.00%

$$\text{Total Asset Turnover} = \frac{\text{Net Sales}}{\text{Average Total Assets}}$$

	2004	2003
	$\frac{\$1{,}050{,}000}{\$230{,}000}$	$\frac{\$1{,}000{,}000}{\$200{,}000}$
	4.57 times per year	5.00 times per year

$$= \text{Return on Common Equity} = \frac{\text{Net Income Before Noncurring Items Minus Preferred Dividends}}{\text{Average Common Equity}}$$

	2004	2003
	$\frac{\$52{,}500}{\$170{,}000}$	$\frac{\$40{,}000}{\$160{,}000}$
	30.88%	25.00%

P 8-3 The balance sheet for Schultz Bone Company at December 31, 2011 had the following account balances:

Total current liabilities (non-interest-bearing)	$450,000
Bonds payable, 6% (issued in 1982; due in 2018)	750,000
Preferred stock, 5%, $100 par	300,000
Common stock, $10 par	750,000
Premium on common stock	150,000
Retained earnings	600,000

Income before income tax was $200,000, and income taxes were $80,000 for the current year.

Required Calculate each of the following:

a. Return on assets (using ending assets)
b. Return on total equity (using ending total equity)
c. Return on common equity (using ending common equity)
d. Times interest earned

PROBLEM 8-3

Earnings Before interest and tax	$245,000
Interest (750,000 x 6%)	45,000
Earnings before tax	$200,000
Tax	80,000
Net income	$120,000
Preferred dividends	15,000
Income available to common	$105,000

a.
$$\text{Return on Assets} = \frac{\text{Net Income Before Minority Share of Earnings and Nonrecurring Items}}{\text{Average Total Assets}} = \frac{\$120,000}{\$3,000,000} = 4.00\%$$

b.
$$\text{Return on Total Equity} = \frac{\text{Net Income Before Nonrecurring Items} - \text{Dividends on Redeemable Preferred Stock}}{\text{Average Total Equity}} = \frac{\$120,000}{\$3,000,000} = 4.00$$

c.
$$\text{Return on Common Equity} = \frac{\text{Net Income Before Nonrecurring Items} - \text{Average Common Equity}}{\text{Average Common Equity}}$$

$$\frac{\$200,000 - \$80,000 - \$15,000}{\$1,500,000} = 7.00\%$$

d.
$$\text{Times Interest Earned} = \frac{\text{Recurring Earnings, Excluding Interest Expense, Tax Expense, Equity Earnings, and Minority Earnings}}{\text{Interest Expense, Including Capitalized Interest}} = \frac{\$245,0}{\$45,0}$$

= 5.44 times per year

18. Which of the following would most likely cause a rise in net profit margin?
   a. increased sales
   b. decreased preferred dividends
   c. increased cost of sales
   d. decreased operating expenses
   e. decreased earnings per share

   ANS: D

ان يؤدي ↓ اي انخفاض +

19. Which of the following could cause return on assets to decline when net profit margin is increasing?
   a. sale of investments at year-end
   b. increased turnover of operating assets
   c. decline in book value
   d. a stock split
   e. purchase of a new building at year-end

   ANS: E

20. Which of the following expresses DuPont analysis?
   a. net profit margin = total asset turnover times return on assets
   b. total asset turnover = operating asset turnover times financial leverage
   c. return on assets = net profit margin times total asset turnover
   d. return on investment = return on equity (1 - tax rate)
   e. dividend yield = dividend payout times earnings per share

   ANS: C

21. Operating assets equals:
   a. cash, accounts receivable, and equipment
   b. current assets plus tangible assets
   c. total assets minus intangible assets
   d. only long-term assets
   e. only current assets

   ANS: B

ROI

22. Return on investment measures:
   a. return to all suppliers of funds
   b. return to all long-term creditors
   c. return to all long-term suppliers of funds
   d. return to stockholders
   e. return to all short-term suppliers of funds

   ANS: C

23. In the formula for return on investment, interest expense is multiplied by (1 - tax rate). Why is this adjustment made?
   a. Interest is not tax deductible.
   b. Debt is excluded from the denominator.
   c. Net income in the formula is after tax.
   d. Dividends are not deductible for tax purposes.
   e. None of the answers are correct.

   ANS: C

18. Which of the following would most likely cause a rise in net profit margin?
   a. increased sales
   b. decreased preferred dividends
   c. increased cost of sales
   d. decreased ~~operating~~ expenses
   e. decreased earnings per share

   ANS: D

ان يؤدي اي انخفاض ↓

19. Which of the following could cause return on assets to decline when net profit margin is increasing?
   a. sale of investments at year-end
   b. increased turnover of operating assets
   c. decline in book value
   d. a stock split
   e. purchase of a new building at year-end

   ANS: E

20. Which of the following expresses DuPont analysis?
   a. net profit margin = total asset turnover times return on assets
   b. total asset turnover = operating asset turnover times financial leverage
   c. return on assets = net profit margin times total asset turnover
   d. return on investment = return on equity (1 - tax rate)
   e. dividend yield = dividend payout times earnings per share

   ANS: C

21. Operating assets equals:
   a. cash, accounts receivable, and equipment
   b. current assets plus tangible assets
   c. total assets minus intangible assets
   d. only long-term assets
   e. only current assets

   ANS: B

ROI

22. Return on investment measures:
   a. return to all suppliers of funds
   b. return to all long-term creditors
   c. return to all long-term suppliers of funds
   d. return to stockholders
   e. return to all short-term suppliers of funds

   ANS: C

23. In the formula for return on investment, interest expense is multiplied by (1 - tax rate). Why is this adjustment made?
   a. Interest is not tax deductible.
   b. Debt is excluded from the denominator.
   c. Net income in the formula is after tax.
   d. Dividends are not deductible for tax purposes.
   e. None of the answers are correct.

   ANS: C

CHAPTER 8—PROFITABILITY

MULTIPLE CHOICE

1. Which of the following is not a base against which profits are measured?

    a. owners' equity
    b. owners' and creditors' funds provided
    c. intangibles
    d. revenues
    e. productive assets

    ANS: C

2. Net profit margin measures return on:

    a. sales
    b. owners' equity
    c. productive assets
    d. total assets
    e. inventory

    ANS: A

3. Total asset turnover measures the ability of a firm to:

    a. generate profits on sales
    b. generate sales through the use of assets
    c. buy new assets
    d. move inventory
    e. cover long-term debt

    ANS: B

4. The DuPont method return on assets uses two component ratios. What are they?

    a. inventory turnover × gross profit margin
    b. times interest earned × debt ratio
    c. return on equity × dividend payout
    d. net profit margin × total asset turnover
    e. return on investment × total investment turnover

    ANS: D

5. Return on assets <u>cannot</u> fall under which of the following circumstances?

Net Profit Margin	Total Asset Turnover
a. decline	rise
b. rise	decline
c. rise	rise
d. decline	decline

e. The ratio could fall under all of the answers.

ANS: C

6. A reason that equity earnings create a problem in analyzing profitability is that equity earnings are:

a. usually greater than the related cash flow
b. less than dividends declared
c. more than dividends declared
d. extraordinary
e. nonrecurring

ANS: A

7. In the analysis of profitability, if equity earnings are substantial, it is advisable to:

a. consider them as extraordinary
b. consider them as nonrecurring
c. investigate the earning power of the parent outside of the related investing activities
d. recompute the debt ratio and times interest earned to remove the impact of equity earnings
e. use the DuPont method to lessen the impact of equity earnings

ANS: C

8. Which of the following is <u>not</u> a type of operating asset?

a. inventory
b. cash
c. land
d. Long-term investments
e. equipment

ANS: D

9. Operating income is:

a. net sales less cost of goods sold
b. earnings before interest and tax
c. earnings before tax and nonrecurring items
d. gross profit less operating expenses

e. net income plus interest

ANS: D

10. Which of the following circumstances will cause sales to fixed assets to be abnormally high?

a. A recent purchase of land.

b. A labor-intensive industry.

c. A highly mechanized facility.

d. High direct labor costs from a new union contract.

e. The use of units-of-production depreciation.

ANS: B

11. Which of the following ratios will usually have the lowest percent?

a. return on investment

b. return on total equity

c. return on common equity

d. return on total assets

e. there is not enough information to tell

ANS: D

12. Which suppliers of funds bear the greatest risk and should therefore earn the greatest return?

a. bondholders

b. suppliers

c. general creditors such as banks

d. preferred shareholders

e. common shareholders

ANS: E

13. Gross profit margin is an important ratio of merchandising firms because:

a. their investments in real property are high

b. cost of goods sold is usually the largest expense

c. selling expenses, like advertising, are usually quite high

d. it measures their ability to collect receivables

e. it measures their ability to use total assets

ANS: B

14. Which of the following is <u>not</u> a reporting requirement on interim reports?

a. seasonal information

b. major changes in income tax provision

c. full, although condensed, balance sheet

d. earnings per share

e. significant changes in financial position

ANS: C

15. Income tax expense in interim reporting should:

a. be based on the quarterly income only

b. contain a judgment estimation of the annual effective tax rate

c. be based on the income year-to-date

d. exclude extraordinary items in earlier quarters of the year

e. disregard year-end adjustments

ANS: B

16. Minority share of earnings is:

a. the total earnings of unconsolidated subsidiaries

b. earnings based on the percent of holdings by parent company of unconsolidated subsidiaries

c. the total earnings of consolidated subsidiaries

d. earnings based on the percent of holdings by outside owners of consolidated subsidiaries

e. none of the answers are correct

ANS: D

17. Net earnings before deducting minority share of earnings is utilized in the following ratios, since minority interests are included in the base. Which ratio is an exception to this statement?

a. net profit margin

b. return on assets

c. return on equity

d. return on investment

e. none of the answers are correct

ANS: C

18. Which of the following would most likely cause a rise in net profit margin?

a. increased sales

b. decreased preferred dividends

c. increased cost of sales

d. decreased operating expenses

e. decreased earnings per share

ANS: D

19. Which of the following could cause return on assets to decline when net profit margin is increasing?

a. sale of investments at year-end

b. increased turnover of operating assets

c. decline in book value

d. a stock split

e. purchase of a new building at year-end

ANS: E

20. Which of the following expresses DuPont analysis?

a. net profit margin = total asset turnover times return on assets

b. total asset turnover = operating asset turnover times financial leverage

c. return on assets = net profit margin times total asset turnover

d. return on investment = return on equity (1 - tax rate)

e. dividend yield = dividend payout times earnings per share

ANS: C

21. Operating assets equals:

a. cash, accounts receivable, and equipment

b. current assets plus tangible assets

c. total assets minus intangible assets

d. only long-term assets

e. only current assets

ANS: B

22. Return on investment measures:

a. return to all suppliers of funds

b. return to all long-term creditors

c. return to all long-term suppliers of funds

d. return to stockholders

e. return to all short-term suppliers of funds

ANS: C

23. In the formula for return on investment, interest expense is multiplied by (1 - tax rate). Why is this adjustment made?

a. Interest is not tax deductible.

b. Debt is excluded from the denominator.

c. Net income in the formula is after tax.

d. Dividends are not deductible for tax purposes.

e. None of the answers are correct.

ANS: C

Chapter 9

For the Investor

1- $$\text{Degree of Financial Leverage} = \frac{\text{\% Change Net Income}}{\text{\% Change EBIT}}$$

OR

$$\text{Degree of Financial Leverage} = \frac{\text{Earnings Before Interest and Tax}}{\text{Earnings Before Tax}}$$

2- $$\text{Earnings per Share} = \frac{\text{Net Income} - \text{Preferred Dividends}}{\text{Weighted Average Number of Common Shares Outstanding}}$$

3- $$\text{Price/Earnings Ratio} = \frac{\text{Market Price per Share}}{\text{Diluted Earnings per Share, Before Nonrecurring Items}}$$

4- $$\text{Percentage of Earnings Retained} = \frac{\text{Net Income Before Nonrecurring Items} - \text{All Dividends}}{\text{Net Income Before Nonrecurring Items}}$$

5- $$\text{Dividend Payout} = \frac{\text{Dividends per Common Share}}{\text{Diluted Earnings per Share Before Nonrecurring Items}}$$

6- $$\text{Dividend Yield} = \frac{\text{Dividends per Common Share}}{\text{Market Price per Common Share}}$$

7- $$\text{Book Value per Share} = \frac{\text{Total Shareholders' Equity} - \text{Preferred Stock Equity}}{\text{Number of Common Shares Outstanding}}$$

P 9-2 A firm has earnings before interest and tax of $1,000,000, interest of $200,000, and net income of $400,000 in Year 1.

Required

a. Calculate the degree of financial leverage in base Year 1.
b. If earnings before interest and tax increase by 10% in Year 2, what will be the new level of earnings, assuming the same tax rate as in Year 1?
c. If earnings before interest and tax decrease to $800,000 in Year 2, what will be the new level of earnings, assuming the same tax rate as in Year 1?

PROBLEM 9-2

a. $$\text{Degree of Financial Leverage} = \frac{\text{Earnings Before Interest, Tax, Minority Share of Earnings, Equity Income and Nonrecurring Items}}{\text{Earnings Before Tax, Minority Share of Earnings, Equity Income, and Nonrecurring Items}}$$

$$= \frac{\$1,000,000}{\$800,000}$$

$$= 1.25$$

b.

Prior earnings before interest and tax	$1,000,000
10% increase	100,000
Adjusted income before interest and tax	$1,100,000
Interest	200,000
Income before tax	$ 900,000
Tax (50% rate)	450,000
Net income	$ 450,000

Earnings will increase by 12.5% to $450,000
($400,000 x 112.5% = $450,000)

c. $800,000
200,000
600,000
300,000
$300,000

P 9-5 Dicker Company has the following pattern of financial data for Years 1 and 2:

	Year 1	Year 2
Net income	$ 40,000	$ 42,000
Preferred stock (5%)	$450,000	$550,000
Weighted average number of common shares outstanding	38,000	38,000

Required Calculate earnings per share and comment on the trend.

PROBLEM 9-5

Simple Earnings Per Share = Net Income - Preferred Dividends / Weighted Average Number of Common Shares Outstanding

Year 1	Year 2
$40,000 - $22,500 / 38,000	$42,000 - $27,500 / 38,500
$.46	$.38

P 9-10 Smith and Jones, Inc. is primarily engaged in the worldwide production, processing, distribution, and marketing of food products. The following information is from its 2011 annual report:

	2011	2010
Earnings per share	$ 1.08	$ 1.14
Cash dividends per common share	$ 0.80	$ 0.76
Market price per common share	$ 12.94	$ 15.19
Common shares outstanding	25,380,000	25,316,000
Total assets	$1,264,086,000	$1,173,924,000
Total liabilities	$ 823,758,000	$ 742,499,000
Nonredeemable preferred stock	$ 16,600,000	$ 16,600,000
Preferred dividends	$ 4,567,000	$ 930,000
Net income	$ 32,094,000	$ 31,049,000

Required

a. Based on these data, compute the following for 2011 and 2010:

1. Percentage of earnings retained
2. Price/earnings ratio
3. Dividend payout
4. Dividend yield
5. Book value per share

PROBLEM 9-10

a. 1. Percentage of Earnings Retained =

$$\frac{\text{Net Income} - \text{All Dividends}}{\text{Net Income}}$$

	2003	2002
Cash dividends	$.80 x 25,380,000	$.76 x 25,316,000
	$20,304,000	$19,240,160
Preferred dividends	4,567,000	930,000
Total dividends	24,871,000	20,170,160
Net income (B)	32,094,000	31,049,000
Net income - dividends (A)	7,223,000	10,878,840
Percentage of earnings retained (A) / (B)	22.51%	35.04%

2. Price/Earnings Ratio = $\frac{\text{Market Price}}{\text{Fully Diluted Earnings Per Share}}$

	2003	2002
	$\frac{\$12.94}{\$\ 1.08}$	$\frac{\$15.19}{\$\ 1.14}$
	11.98%	13.32%

3. Dividend Payout = $\frac{\text{Dividends Per Share}}{\text{Fully Diluted Earnings Per Share}}$

	2003	2002
	$\frac{\$\ .80}{\$\ 1.08}$	$\frac{\$\ .76}{\$\ 1.14}$
	74.07%	66.67%

4. Dividend Yield = $\frac{\text{Dividends Per Share}}{\text{Market Price Per Share}}$

	2003	2002
	$\frac{\$\ .80}{\$12.94}$	$\frac{\$\ .76}{\$15.19}$
	6.18%	5.00%

5. Book Value Per Share = $\frac{\text{Common Equity}}{\text{Shares Outstanding}}$

	2003	2002
Total assets	$1,264,086,000	$1,173,924,000
Less: total liabilities	(823,758,000)	(742,499,000)
Less: non-redeemable preferred stock	(16,600,000)	(16,600,000)
Common equity (A)	$ 423,728,000	$ 414,825,000
Shares outstanding	25,380,000	25,316,000
Book value per share (A) / (B)	$16.70	$16.39

CHAPTER 9—FOR THE INVESTOR

MULTIPLE CHOICE

1. The ratio percentage of earnings retained is the same as that termed:

   a. dividend yield

   b. dividend payout

   c. this year's retained earnings to net income

   d. return on common equity

   e. book value

   ANS: C

2. The earnings per share is computed for:

   a. common stock

   b. non-redeemable preferred

   c. redeemable preferred

   d. common stock and non-redeemable preferred stock

   e. common stock and fully diluted preferred stock

   ANS: A

3. In 2008, ABC Company reported earnings per share of $2.00 for 10,000 shares. In 2009, there was a 2-for-1 stock split, for which 2009 earnings per share were reported at $2.10. The appropriate earnings per share presentation for a 2-year comparative analysis would be:

	2009	2008
a.	$2.10	$2.00
b.	$1.05	$2.00
c.	$1.05	$2.00
d.	$2.10	$1.00

   e. none of the answers are correct

   ANS: D

4. Interest expense creates magnification of earnings through financial leverage because:

   a. the interest rate is variable

   b. interest accompanies debt financing

   c. the use of interest causes higher earnings

   d. interest costs are cheaper than the required rate of return to equity owners

   e. while earnings available to pay interest rise, earnings to residual owners rise faster

   ANS: E

5.What is the effect of the exercise of stock options?

a. They generate cash to the issuing firm and therefore increase profit per share.

b. They are an expense at the time of exercise. This lowers net income.

c. They increase debt and lower borrowing capacity but have no effect on profit.

d. They increase the number of shares outstanding.

e. They have no immediate effect on profitability.

ANS: D

6. A summarized income statement for Leveraged Inc. is presented below.

Sales	$1,000,000
Cost of Sales	600,000
Gross Profit	$ 400,000
Operating Expenses	250,000
Operating Income	$ 150,000
Interest Expense	30,000
Earnings Before Tax	$ 120,000
Income Tax	40,000
Net Income	$ 80,000

The degree of financial leverage is:

a. $150,000/$30,000

b. $150,000/$120,000

c. $1,000,000/$400,000

d. $150,000/$80,000

e. $400,000/$120,000

ANS: B

7. Dawn Alive reported the following for 2008.

Ending market price	$40.75
Earnings per share:	
Basic	2.50
Diluted	2.08
Dividends per share	1.10

The price/earnings ratio and dividend payout were:

a. 19.59 and 52.88%

b. 16.30 and 52.88%

c. 16.30 and 44.00%

d. 19.59 and 44.00%

e. 37.04 and 52.88%

ANS: A

8. The best dividend payout ratio:

a. approximates 50%

b. continues at the same level as was historically paid

c. is similar to the industry average

d. is higher than that of competitors

e. does not follow any rule of thumb for dividend payout

ANS: E

9. The following data were gathered from the annual report of Desk Products.

Market price per share	$30.00
Number of common shares	10,000
Preferred stock, 5%	
$100 par	$10,000
Common equity	$140,000

The book value per share is:

a. $30.00

b. $15.00

c. $14.00

d. $13.75

e. none of the answers are correct

ANS: C

10. Which of the following is <u>not</u> a reason to interpret book value with caution?

a. Land may be worth more than it cost.

b. Depreciable assets may be held.

c. Investments may be worth more than their purchase price.

d. Patents may have a high market value.

e. All of the answers are correct.

ANS: E

11. Which of the following is <u>not</u> a true statement regarding stock options?

a. They may cause dilution of earnings per share.

b. They generally allow the purchase of common stock at favorable terms.

c. They involve a compensation expense.

d. Exercise improves the short-term liquidity and debt position of the issuing firm.

e. The potential dilution can be disregarded in financial analysis.

ANS: E

12. Good Boss Inc. had the following pattern of results related to stock appreciation rights.

Shares in the plan	20,000
Option price	$15.00
Market price—	
end year 1	$20.00
end year 2	$18.00
end year 3	$22.00

The compensation expense would be:

	Year 1	Year 2	Year 3
a.	$100,000	$ -0-	$40,000
b.	100,000	60,000	40,000
c.	100,000	(40,000)	80,000
d.	400,000	-0-	40,000

e. none of the answers are correct

ANS: C

13. Using financial leverage is a good financial strategy from the viewpoint of stockholders of companies having:

a. a high debt ratio

b. cyclical highs and lows

c. steady or rising profits

d. a steadily declining current ratio

e. none of the answers are correct

ANS: C

14. A firm has a degree of financial leverage of 1.20. If earnings before interest and tax increase by 20%, then net income:

a. will not necessarily change

b. will increase by 20%

c. will decrease by 24%

d. will decrease by 20%

e. none of the answers are correct

ANS: E

15. The price/earnings ratio:

   a. measures the past earning ability of the firm
   b. is a gauge of future earning power as seen by investors
   c. relates price to dividends
   d. relates price to total net income
   e. all of the answers are correct

   ANS: B

16. Stable dividend policy would most commonly imply:

   a. a high price/earnings ratio
   b. a stable dividend yield
   c. stable dividends per share
   d. stable earnings per share
   e. increasing dividends per share

   ANS: C

17. Book value per share may not approximate market value per share because:

   a. the book value is after tax
   b. book values are based on replacement costs rather than market values
   c. book value is related to book figures and market value is related to the future potential as seen by investors
   d. investors do not understand book value
   e. book value is not related to dividends

   ANS: C

18. Which of the following ratios represents dividends per common share in relation to market price per common share?

   a. dividend payout
   b. dividend yield
   c. price/earnings
   d. book value per share
   e. percentage of earnings retained

   ANS: B

19. Which of the following ratios usually reflects investors opinions of the future prospects for the firm?

   a. dividend yield
   b. book value per share
   c. price/earnings ratio
   d. earnings per share
   e. dividend payout

   ANS: C

Chapter 10

Statement of Cash Flows

مهم

Assets علاقة عكسية مع cash

- Increase in assets

\+ decrese in assets

liabilities and equity علاقة طرديه مع cash

\+ increase in liabilities and equity

- Decrese in liabilities and equity

1. *Cash flow from operating activities*

Net icome (IS)

\+ depreciation (IS)

\+ account receivable (BS)

\+ inventory (BS)

\+ account payable (BS)

\+ accruals (BS)

= ***Cash flow from operating***

2. ***Cash flow from investing***

Gross fixed assets (BS)

=***Cash flow from investing activities***

3. Cash flow from financing activities

Note payable (BS)

Long term debt (BS)

preferred stock (BS)

common stock (BS)

paid in capital (BS)

dividends paid (IS)

= **Cash flow from financing activities**

Cash flow from operating activities

+ ***Cash flow from investing***

+ ***Cash flow from financing activities***

= change in cash marketable securities

Financial Ratios and the Statement of Cash Flows

1. **Operating Cash Flow/Current Maturities of Long-Term Debt and Current Notes Payable**=

$$\frac{\text{Operating Cash Flow}}{\text{Current Maturities of Long-Term Debt and Current Notes Payable}}$$

2.Operating Cash Flow to Total Debt =

$$\frac{\text{Operating Cash Flow}}{\text{Total Debt}}$$

3. Operating Cash Flow per Share =

$$\frac{\text{Operating Cash Flow - Preferred Dividends}}{\text{Diluted Weighted Average Common Shares Outstanding}}$$

4. Operating Cash Flow to Cash Dividends =

$$\frac{\text{Operating Cash Flow}}{\text{Cash Dividends}}$$

P 10-10 The Ladies Store presented the following statement of cash flows for the year ended December 31, 2011:

THE LADIES STORE
Statement of Cash Flows
For Year Ended December 31, 2011

Cash received:	
From sales to customers	$150,000
From sales of bonds	100,000
From issuance of notes payable	40,000
From interest on bonds	5,000
Total cash received	295,000

Cash payments:	
For merchandise purchases	$110,000
For purchase of truck	20,000
For purchase of investment	80,000
For purchase of equipment	45,000
For interest	2,000
For income taxes	15,000
Total cash payments	272,000
Net increase in cash	$ 23,000

Note: Depreciation expense was $15,000.

Required

a. Prepare a statement of cash flows in proper form.

PROBLEM 10-10

a. The Ladies Store
Statement of Cash Flows
For the Year Ended December 31, 2005

Cash flows from operating activities:		
Cash receipts from customers	$150,000	
Cash receipts from interest	5,000	
Cash payments for merchandise	(110,000)	
Cash payments for interest	(2,000)	
Cash payments for income taxes	(15,000)	
Net cash flow from operating activities		$ 28,000
Cash flows from investing activities:		
Cash outflow for purchase of truck	(20,000)	
Cash outflow for purchase of investment	(80,000)	
Cash outflow for purchase of equipment	(45,000)	
Net outflow for investing activities		(145,000)
Cash flows from financing activities:		
Cash inflow from sale of bonds	100,000	
Cash inflow from issuance of note payable	40,000	
Cash inflow from financing activities		140,000
Net increase in cash		$ 23,000

	2016	2015		2016	2015
Cash	363,000	288,000	Accounts Payable	382,000	270,000
Marketable Securities	68,000	51,000	Notes Payable	79,000	99,000
Accounts Receivable	503,000	365,000	Accruals	159,000	114,000
Inventory	289,000	300,000	Total Current Liabilities	620,000	483,000
Total Current Assets	1,223,000	1,004,000	Long-term Liabilities	1,023,000	967,000
Land and Buildings	2,072,000	1,903,000	Total Liabilities	1,643,000	1,450,000
Machinery and Equipment	1,866,000	1,693,000	Preferred Stock, Cumulative 5%, $100 Par	200,000	200,000
Furniture and fixtures	358,000	316,000	Common Stock, $1 Par Value	191,000	190,000
Vehicles	275,000	314,000	Additional Paid-in-capital	428,000	418,000
other (include financial leases)	98,000	96,000	Retained Earnings	1,135,000	1,012,000
Total Gross Fixed Assets	4,669,000	4,322,000	Total Equity	1,954,000	1,820,000
Accumulated Depreciation	2,295,000	2,056,000	Total Liabilities and Equity	3,597,000	3,270,000
Total Net Fixed Assets	2,374,000	2,266,000			
Total Assets	3,597,000	3,270,000			

	2016	2015
Net Sales	3,074,000	2,567,000
C.G.S.	2,088,000	1,711,000
Gross Profit	986,000	856,000
General and Administrative Expenses	194,000	187,000
Selling Expenses	100,000	108,000
lease Expenses	35,000	35,000
Depreciation Expenses	239,000	223,000
Total Operating Expenses	568,000	553,000
Operating Profit	418,000	303,000
Interest expenses	93,000	91,000
Earnings before Tax	325,000	212,000
Tax	94,000	64,000
Net Income	231,000	148,000

Preferred Stock Dividends	10,000	10,000
Common Stock Dividends	98,000	57,183

ANS:

Indirect

Cash Flow from Operating Activities	2016
Net Income after Tax	231,000
Depreciation	239,000
Change in A/R	-138,000
Change in Inventory	11,000
Change in A/P	112,000
Change in Accruals	45,000
Cash Flow from Operating Activities	**500,000**

Cash Flow from Investment Activities	
Chang in Fixed Assets	-347,000
Cash Flow from Investment Activities	**-347,000**

Cash Flow from Financing Activities	
Change in N/P	-20,000
Change in Long-Term Debt	56,000
Change in Preferred Stock	0
Change in Common Stock	1,000
Change in Additional Paid-in-capital	10,000
Dividends Paid	-108,000
Cash Flow from Financing Activities	**-61,000**

Net Change in Cash MS	**92,000**

Direct

	2016
Sales	3,074,000
Change in A/R	-138,000
Cash collections	**2,936,000**
C.G.S.	2,088,000
Change in Inventory	-11,000
Change in A/P	-112,000
Cash payment for purchases	**1,965,000**
General and Administrative Expenses	194,000
Selling Expenses	100,000
lease Expenses	35,000
Change in Prepaid Expenses	0
Change in Accruals	-45,000
Cash payment for operating expenses	**284,000**
Cash interest	93,000
Cash payment for income taxes	94,000
Cash Flow from Operating Activities	**500,000**

Cash Flow from Investment Activities	
Chang in Fixed Assets	-347,000
Cash Flow from Investment Activities	**-347,000**

Cash Flow from Financing Activities	
Change in N/P	-20,000
Change in Long-Term Debt	56,000
Change in Preferred Stock	0
Change in Common Stock	1,000
Change in Additional Paid-in-capital	10,000
Dividends Paid	-108,000
Cash Flow from Financing Activities	**-61,000**

Net Change in Cash MS	**92,000**

6. The balance sheet for December 31, 2008, December 31, 2007, and the income statement for the year ended December 31, 2008, for Rocket Company follows.

Rocket Company
Balance Sheet
December 31, 2008 and 2007

	2008	2007
Assets		
Cash	$ 25,000	$20,000
Accounts receivable, net	60,000	70,000
Inventory	80,000	100,000
Land	50,000	50,000
Building and equipment	130,000*	115,000
Accumulated depreciation	(85,000)	(70,000)
Total assets	$ 260,000	$285,000
Liabilities and Stockholders' Equity		
Accounts payable	$ 30,000	$ 35,000
O Income taxes payable	4,000	3,000
Wages payable	5,000	3,000
F Current notes payable	50,000**	60,000
Common stock	110,000***	100,000
Retained earnings	61,000	84,000
Total liabilities and stockholders' equity	$260,000	$285,000

* During 2008 cash payments for building and equipment $15,000.
** During 2008 cash paid for retirement of notes payable $10,000.
*** During 2008 cash received from issuance of stock.

Rocket Company
Income Statement
For the Year Ended December 31, 2008

Sales		$500,000
Less expenses:		
Cost of goods sold	$330,000	
Selling and administrative expenses (includes depreciation of $15,000)	90,000	
Interest expense	5,000	
Total expenses		425,000
Income before taxes		$ 75,000
Income tax expense		30,000
Net income		$ 45,000

Note: Cash dividends of $68,000 were paid during 2008.

Required:
a. Prepare the statement of cash flows for 2008. (Present cash flows from operations using the indirect approach.)
b. Compute the ratio operating cash flow/current maturities of long-term debt and current notes payable.

ANS:

a.

Rocket Company
Statement of Cash Flows
For the Year Ended December 31, 2008

Cash flow from operating activities:	
Net income	$ 45,000
Add(deduct) items not affecting operating cash:	
Depreciation expense	15,000
Decrease in receivables	10,000
Decrease in inventory	20,000
Accounts payable decrease	(5,000)
Income taxes payable increase	1,000
Wages payable increase	2,000
Net increase in cash flow from operations	$ 88,000
Cash flow from investing activities:	
Cash payments for building and equipment	$ (15,000)
Cash flow from financing activities:	
Cash from issuance of stock	$ 10,000
Cash paid for retirement of notes payable	(10,000)
Cash dividends paid	(68,000)
Net cash outflow from financing activities	$ (68,000)
Net increase in cash	$ 5,000

b. Cash from operations/Current maturities of long-term debt and current notes payable.

$$\frac{\$88,000}{\$50,000} = 1.76 \text{ times}$$

5. A times interest earned ratio indicates that:
   a. preferred stock has no maturity date
   b. the debt will never become due
   c. the firm will be able to repay the principal when due
   d. the principal can be refinanced
   e. none of the answers are correct

   ANS: E

6. Jordan Manufacturing reports the following capital structure:

Current liabilities	$100,000
Long-term debt	400,000
Deferred income taxes	10,000
Preferred stock	80,000
Common stock	100,000
Premium on common stock	180,000
Retained earnings	170,000

   What is the debt ratio?
   a. 0.48
   b. 0.49 ✓
   c. 0.93
   d. 0.96
   e. none of the answers are correct

   ANS: B

7. The debt ratio indicates:
   a. the ability of the firm to pay its current obligations
   b. the efficiency of the use of total assets
   c. the magnification of earnings caused by leverage
   d. a comparison of liabilities with total assets
   e. none of the answers are correct

   ANS: D

6. Amortization of patents can be added to income in the operations section of the statement of cash flows because:
   a. it is not a tax deductible expense
   b. it results in a cash inflow
   c. it does not require the outlay of cash
   d. patent amortization is not an expense
   e. it represents an inflow of cash

   ANS: C

7. Which of the following is not an item added back to income in the operations section of the statement of cash flows when using the indirect presentation?
   a. depreciation
   b. amortization of goodwill
   c. increase in deferred income taxes
   d. amortization of bond premium
   e. amortization of patents

   ANS: D

8. Which of the following transactions is not reflected in a statement of cash flows?
   a. sale of treasury stock
   b. declaration of a stock dividend
   c. purchase of foreign subsidiary with cash
   d. issuance of convertible bonds
   e. purchase of equipment with cash

   ANS: B

9. Management should not use the statement of cash flows for which of the following purposes?
   a. To determine dividend policy.
   b. To determine cash flow from operations.
   c. To determine cash flow from investing activities.
   d. To determine cash flow from financing activities.
   e. To determine the balance in accounts receivable.

   ANS: E

10. Tim Company had sales of $30,000, increase in accounts payable of $5,000, decrease in accounts receivable of $1,000, increase in inventories of $4,000, and depreciation expense of $4,000. What was the cash collected from customers?
    a. $31,000
    b. $35,000
    c. $34,000
    d. $25,000
    e. $26,000

    ANS: A

11. Conroy Company had sales of $50,000, increase in accounts payable of $4,000, decrease in accounts receivable of $3,000, tax expense of $5,000, and an increase in taxes payable of $1,000. What was the cash outflow for taxes?
   a. $54,000
   b. $4,000
   c. $6,000
   d. $53,000
   e. $45,000

   ANS: B

12. Francis Company had operating expenses of $20,000 and depreciation expenses of $4,000. Assuming no other transactions, what was the cash paid for operating expenses?
   a. $24,000
   b. $22,000
   c. $16,000
   d. $20,400
   e. $23,000

   ANS: C

13. In a statement of cash flows (indirect method), depreciation expense should be presented as:
   a. a cash flow from financing activities
   b. a cash flow from investing activities
   c. a deduction from net income
   d. an addition to net income
   e. a financial activity

   ANS: D

14. The retirement of debt by the issuance of common stock should be presented in a statement of cash flows in which of the following sections?
   a. supplemental schedule of noncash investing and financing activities
   b. cash flows from operating activities
   c. cash flows from investing activities
   d. cash flows from financing activities
   e. supplemental schedule to reconcile net income to net cash provided by operations

   ANS: A

15. The statement of cash flows became a required statement in which year?
   a. 1995
   b. 1978
   c. 1971
   d. 1987
   e. 1993

   ANS: D

CHAPTER 10—STATEMENT OF CASH FLOWS

MULTIPLE CHOICE

1. Which of the following is not a purpose of the statement of cash flows?
   a. To show cash flow from operations.
   b. To show cash flow from financing activities.
   c. To show cash flow from investing activities.
   d. To show all investing and financing transactions.
   e. To show operating expenses for a period of time.

   ANS: E

2. Which of the following is not a typical cash flow under operating activities?
   a. cash inflows from sale of goods or services
   b. cash inflows from interest
   c. cash outflows to employees
   d. cash outflows to suppliers
   e. cash inflows from sale of property, plant, and equipment

   ANS: E

3. Which of the following is not a typical cash flow under investing activities?
   a. cash inflow from receipt of loans
   b. cash inflow from sale of property, plant, and equipment
   c. cash outflow for payment of amounts borrowed
   d. cash outflow for loans to other entities
   e. cash outflow for purchase of property, plant, and equipment

   ANS: C

4. Which of the following is not a typical cash flow under financing activities?
   a. cash inflow from sale of equity securities
   b. cash inflow from sale of bonds
   c. cash outflow for payment of dividends
   d. cash outflow for loans to other entities
   e. cash outflow for payment of amounts borrowed

   ANS: D

5. Working capital is defined as:

 a. total assets less intangible assets

 b. current assets divided by current liabilities

 c. current assets less current liabilities

 d. total assets less current assets

 e. current assets less liabilities

ANS: C

6. Amortization of patents can be added to income in the operations section of the statement of cash flows because:

 a. it is not a tax deductible expense

 b. it results in a cash inflow

 c. it does not require the outlay of cash

 d. patent amortization is not an expense

 e. it represents an inflow of cash

ANS: C

7. Which of the following is <u>not</u> an item added back to income in the operations section of the statement of cash flows when using the indirect presentation?

 a. depreciation

 b. amortization of goodwill

 c. increase in deferred income taxes

 d. amortization of bond premium

 e. amortization of patents

ANS: D

8. Which of the following transactions is <u>not</u> reflected in a statement of cash flows?

 a. sale of treasury stock

 b. declaration of a stock dividend

 c. purchase of foreign subsidiary with cash

 d. issuance of convertible bonds

 e. purchase of equipment with cash

ANS: B

9. Management should <u>not</u> use the statement of cash flows for which of the following purposes?

 a. To determine dividend policy.

 b. To determine cash flow from operations.

c. To determine cash flow from investing activities.

d. To determine cash flow from financing activities.

e. To determine the balance in accounts receivable.

ANS: E

10. Tim Company had sales of $30,000, increase in accounts payable of $5,000, decrease in accounts receivable of $1,000, increase in inventories of $4,000, and depreciation expense of $4,000. What was the cash collected from customers?

a. $31,000

b. $35,000

c. $34,000

d. $25,000

e. $26,000

ANS: A

11. Conroy Company had sales of $50,000, increase in accounts payable of $4,000, decrease in accounts receivable of $3,000, tax expense of $5,000, and an increase in taxes payable of $1,000. What was the cash outflow for taxes?

a. $54,000

b. $4,000

c. $6,000

d. $53,000

e. $45,000

ANS: B

12. Francis Company had operating expenses of $20,000 and depreciation expenses of $4,000. Assuming no other transactions, what was the cash paid for operating expenses?

a. $24,000

b. $22,000

c. $16,000

d. $20,400

e. $23,000

ANS: C

13. In a statement of cash flows (indirect method), depreciation expense should be presented as:

a. a cash flow from financing activities

b. a cash flow from investing activities

c. a deduction from net income

d. an addition to net income

e. a financial activity

ANS: D

14. The retirement of debt by the issuance of common stock should be presented in a statement of cash flows in which of the following sections?

a. supplemental schedule of noncash investing and financing activities

b. cash flows from operating activities

c. cash flows from investing activities

d. cash flows from financing activities

e. supplemental schedule to reconcile net income to net cash provided by operations

ANS: A

15. The statement of cash flows became a required statement in which year?

a. 1995

b. 1978

c. 1971

d. 1987

e. 1993

ANS: D

16. Which of the following should not be considered as part of "cash and cash equivalents"?

a. cash on hand

b. cash on deposit

c. highly liquid investments

d. investments in short-term securities (<90 day maturity)

e. cash restricted for retirement of bonds

ANS: E

17. Which of the following accounts will not be considered when computing cash flow from operations?

a. accounts receivable

b. inventories

c. equipment

d. accounts payable

e. taxes payable

ANS: C

18. Which of the following accounts is <u>not</u> part of working capital?

   a. cash

   b. accounts receivable

   c. inventory

   d. accounts payable

   e. investments

ANS: E

19. Which of the following is the focus for the statement of cash flows?

   a. cash

   b. cash and cash equivalents

   c. current assets

   d. working capital

   e. none of the answers are correct

ANS: B